Moving Imager Camera for Track and Range Capture

Abstract of the Disclosure

A precision motion platform carrying an imaging device under a large-field-coverage lens enables capture of high resolution imagery over the full field in an instantaneous telephoto mode and wide-angle coverage through temporal integration. The device permits automated tracking and scanning without movement of a camera body or lens. Coupled use of two or more devices enables automated range computation without the need for subsequent epipolar rectification.

The imager motion enables sample integration for resolution enhancement. The control methods for imager positioning enable decreasing the blur caused by both the motion of the moving imager or the motion of an object's image that the imager is intended to capture.